

Title (en)

Nonwoven binders with high wet/dry tensile strength ratio

Title (de)

Vliesstoffbindemittel mit hohem Nassfestigkeit-Trockenfestigkeit Verhältnis

Title (fr)

Liants pour non-tissé présentant un rapport élevé de résistance à la traction humide/sec

Publication

EP 1482081 B1 20070502 (EN)

Application

EP 04012266 A 20040524

Priority

US 44700903 A 20030528

Abstract (en)

[origin: EP1482081A1] A nonwoven product comprises a nonwoven web of fibers bonded with a polymer containing an aqueous-based ethylene-vinyl acetate polymer emulsion of polymerized units of crystalline ethylene segments; having a crystalline melting point ranging from 35 - 90[deg]C as measured by differential scanning calorimetry at a heat rate of 20[deg]C per minute; and having a wet/dry tensile strength ratio of at least 0.75. A nonwoven product comprises a nonwoven web of fibers bonded together with a polymer containing an aqueous-based ethylene-vinyl acetate polymer emulsion of polymerized units of crystalline ethylene segments; and having a crystalline melting point ranging from 35 - 90[deg]C as measured by differential scanning calorimetry at a heat rate of 20[deg]C per minute. The polymer comprises of polymerized units of vinyl acetate, ethylene, and polymerized units of a crosslinking monomer at a binder add-on that is sufficient to bind the fibers together to form a self-sustaining web. The polymer is prepared by emulsion polymerizing vinyl acetate, ethylene and crosslinking monomer in the presence of a stabilizing system.

IPC 8 full level

C08F 10/02 (2006.01); **C08F 18/08** (2006.01); **C08F 210/02** (2006.01); **C08F 218/08** (2006.01); **D04H 1/587** (2012.01); **D04H 1/64** (2012.01)

CPC (source: EP KR US)

A44B 19/00 (2013.01 - KR); **A45C 15/04** (2013.01 - KR); **A45D 42/00** (2013.01 - KR); **A45D 44/04** (2013.01 - KR);
C08F 210/02 (2013.01 - EP US); **D04H 1/587** (2013.01 - EP US); **D04H 1/64** (2013.01 - EP US); **A45D 29/20** (2013.01 - KR);
Y10T 442/277 (2015.04 - EP US); **Y10T 442/60** (2015.04 - EP US); **Y10T 442/607** (2015.04 - EP US); **Y10T 442/652** (2015.04 - EP US)

C-Set (source: EP US)

C08F 210/02 + C08F 210/18 + C08F 2500/17 + C08F 2500/20

Cited by

EP1634578A1; EP1679353A3; US7238149B2; US7465684B2; WO2011160988A1; WO2006073710A3; WO2010034658A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

EP 1482081 A1 20041201; EP 1482081 B1 20070502; AT E361387 T1 20070515; CN 1308520 C 20070404; CN 1572853 A 20050202;
DE 602004006191 D1 20070614; DE 602004006191 T2 20080110; ES 2281708 T3 20071001; KR 100634181 B1 20061016;
KR 20040103330 A 20041208; MY 137786 A 20090331; SI 1482081 T1 20071031; TW 200426267 A 20041201; TW I283273 B 20070701;
US 2004242106 A1 20041202; US 7297644 B2 20071120

DOCDB simple family (application)

EP 04012266 A 20040524; AT 04012266 T 20040524; CN 200410045773 A 20040528; DE 602004006191 T 20040524;
ES 04012266 T 20040524; KR 20040037684 A 20040527; MY PI20041983 A 20040524; SI 200430385 T 20040524; TW 93114642 A 20040524;
US 44700903 A 20030528